

We claim:

1. An attenuated strain of *Flavobacterium columnare* resistant to ampicillin and effective for eliciting an immune response in fish which is protective against infection by virulent strains of *Flavobacterium columnare*.

2. The attenuated strain as described in claim 1 wherein said strain of *Flavobacterium columnare* is NRRL B-30687.

3. A vaccine comprising: (1) in an effective immunization dosage the attenuated strain of *Flavobacterium columnare* of claim 1 and a carrier.

4. The vaccine as described in claim 3 wherein said strain of *Flavobacterium columnare* is selected from the group consisting of NRRL B-30687.

5. The vaccine as described in claim 3 wherein said carrier is water.

6. A method of providing protection for fish against infection by virulent strains of *Flavobacterium columnare* comprising administering the vaccine of claim 5 to said fish.

7. A method of claim 6 wherein said fish is catfish.

8. The method of claim 6 wherein said administering is by means of immersion of said fish in an aqueous medium containing said vaccine.

9. The method of claim 8 wherein said attenuated strain of *Flavobacterium columnare* is present in the immersion medium at a concentration greater than or equal to about 1×10^5 CFU/mL.